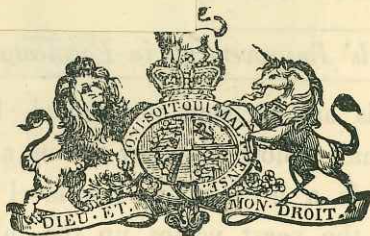


426/16

44

1861

RECORDED



A.D. 1861, 7th MARCH. N° 583.

Fermentation.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by George Hollands at the Office of the Commissioners of Patents, with his Petition, on the 7th March 1861.

I, GEORGE HOLLANDS, of Rochester, County of Kent, Brewer, do hereby
5 declare the nature of the said Invention for "IMPROVEMENTS IN THE MODE
OF AND APPARATUS USED IN THE PROCESS OF FERMENTATION," to be as follows,
that is to say :—

The object of my Invention is by certain arrangements to cause the beer
in the tun or vat always to stand at such a level that the yeast during the
10 process of formation shall be deposited as it forms on the yeast back, without
the trouble of continually skimming, and at the same time obviate the
necessity of exposing the surface of the beer. To effect this I either arrange
my yeast back within and at the top of the beer vat or in a separate vessel ;
if the former, I keep the level of the beer always up to the lip of the back
15 by means of a float, called a compensator, placed upon the surface of the
beer in the tun, and which is caused to be more or less immersed within
the beer according as it is wished to raise or lower the level of the surface
of the beer ; by means of another float laid upon the surface of the beer
the compensator may be made self-acting, that is, that its immersion shall
20 always be such as to cause the beer to stand at the same level, that is, at
the lip of the yeast back when the latter is within the vat or the lip yeast
discharge pipe when the back is placed within the tun. I prefer to make
use of water or other liquids for regulating the immersion of the compensator

Hollands' Improvements in Fermentation.

in the vat, and when this arrangement is adopted, I place within the vat, and also in the beer, a small hollow chimney having a light valve on its top, the mouth of which stands a little above the level of the yeast vat, this I call the attemperator, the yeast passes up the interior of this chimney through the valve and is continually deposited upon the yeast back. The 5 level of the attemperator is obtained in the same way as that of the compensator.

Instead of placing either the yeast back or the compensator within the beer vat as before mentioned, I propose to place either one or both in 10 separate vessels connecting each with pipes and arranging that the level of the compensator, its vessel, and that of the beer in its vessel which is connected with the former shall always be the level of the yeast back, also placed in a separate vessel, in the latter case, instead of using a valve in the top of the attemperator, to allow the escape of the yeast to the yeast 15 back I make use of a domical cover, and carry up a tube to the level of the yeast back having its mouth open. Into this open mouth the yeast passes as it is formed, and falling down is conducted through other tubes to the yeast back, the condensed beer being allowed to filter into another reservoir, from which it may be led back again into the beer vat. Instead of using a tubular attemperator inside the vat in this case I propose to use a spiral 20 one.

LONDON:

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Printers to the Queen's most Excellent Majesty. 1861.